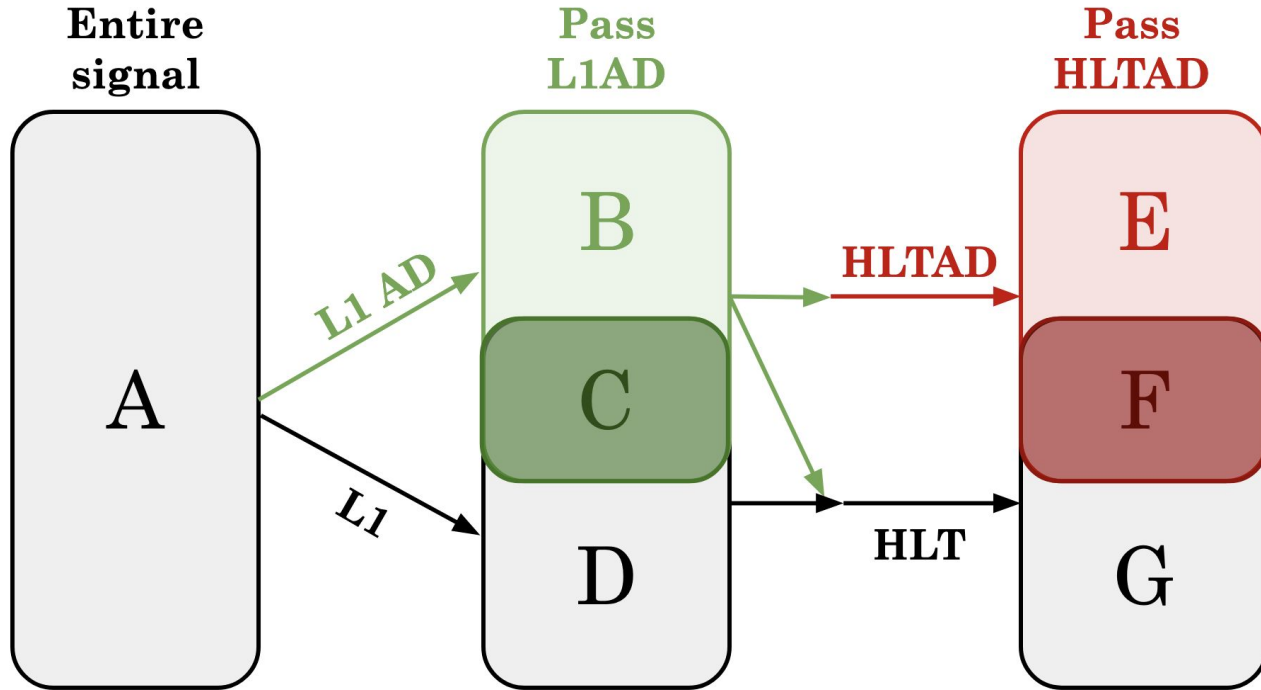# 02-10-2025 AD Trigger Update

Max Cohen

Reference:

HLT performance studies

- I tried many training runs for the HLT network
- Different seeding schemes, object types
- Different hyperparameters
  - Learning rate, dropout percentage, L2 regularization coupling, latent space dimension

- For each run, train 5 models to evaluate performance

- Also calculate efficiency over 5 different PhysMain runs, as well as 1 PhysMain run with the GRL inverted (only bad LBs)
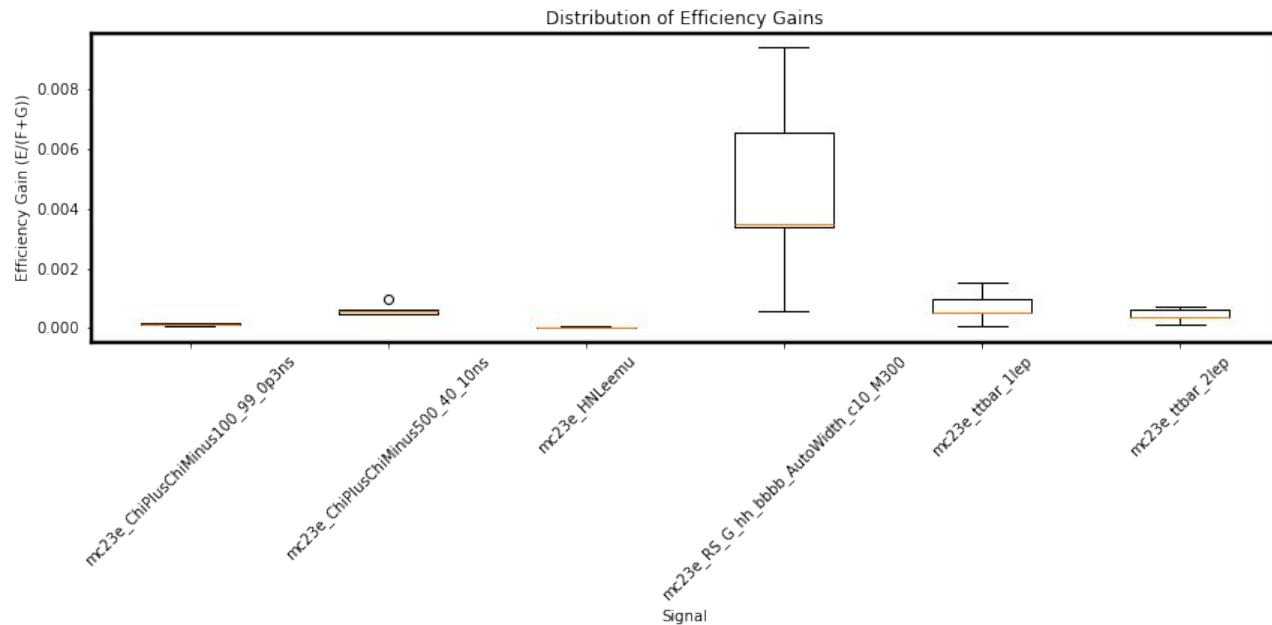
HLT objects, seeded by L1AD
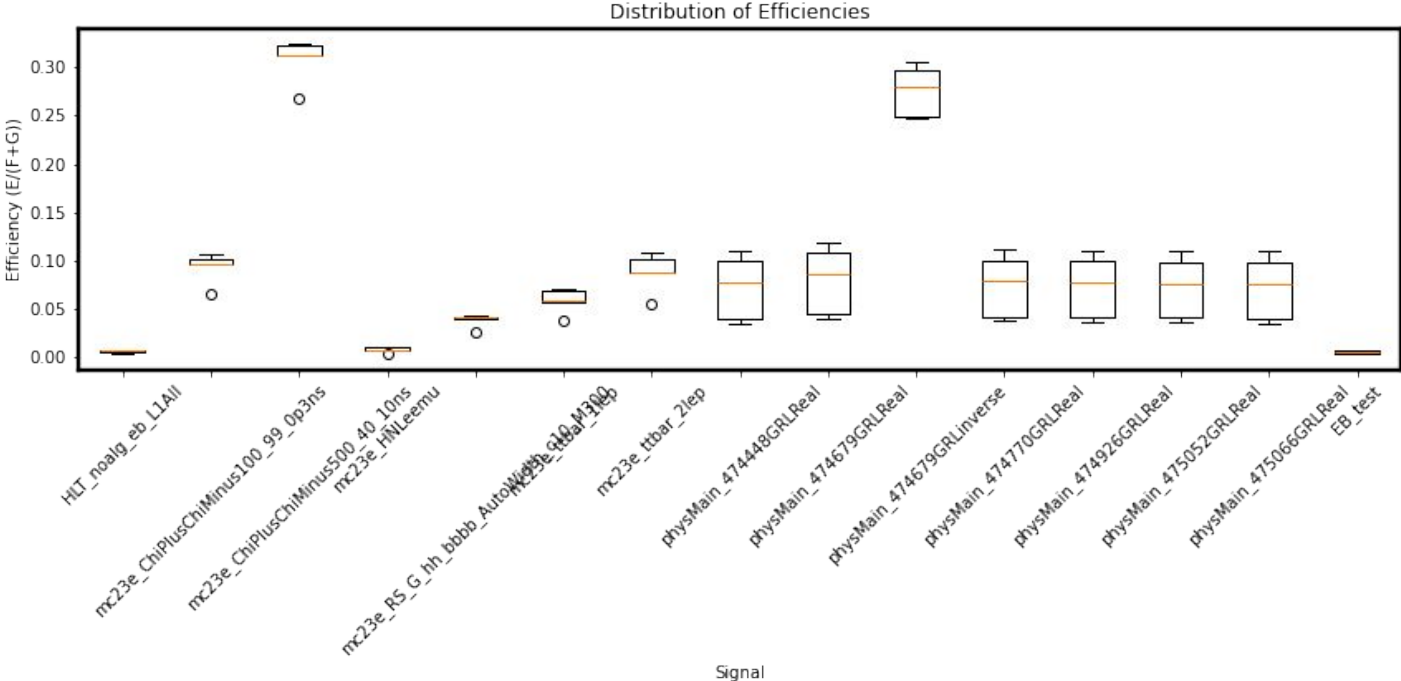
Raw efficiencies (E+F) / (B+C):
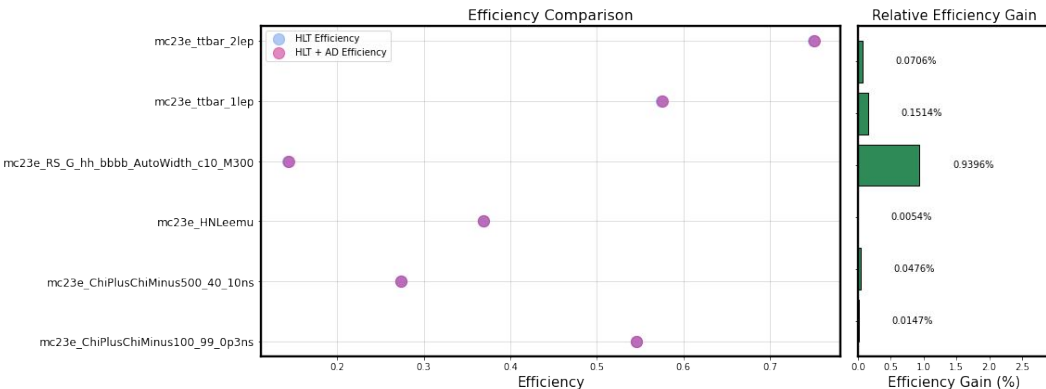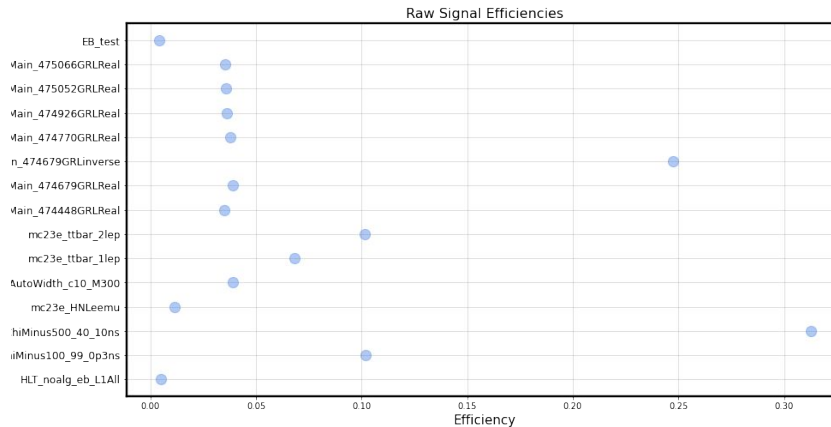
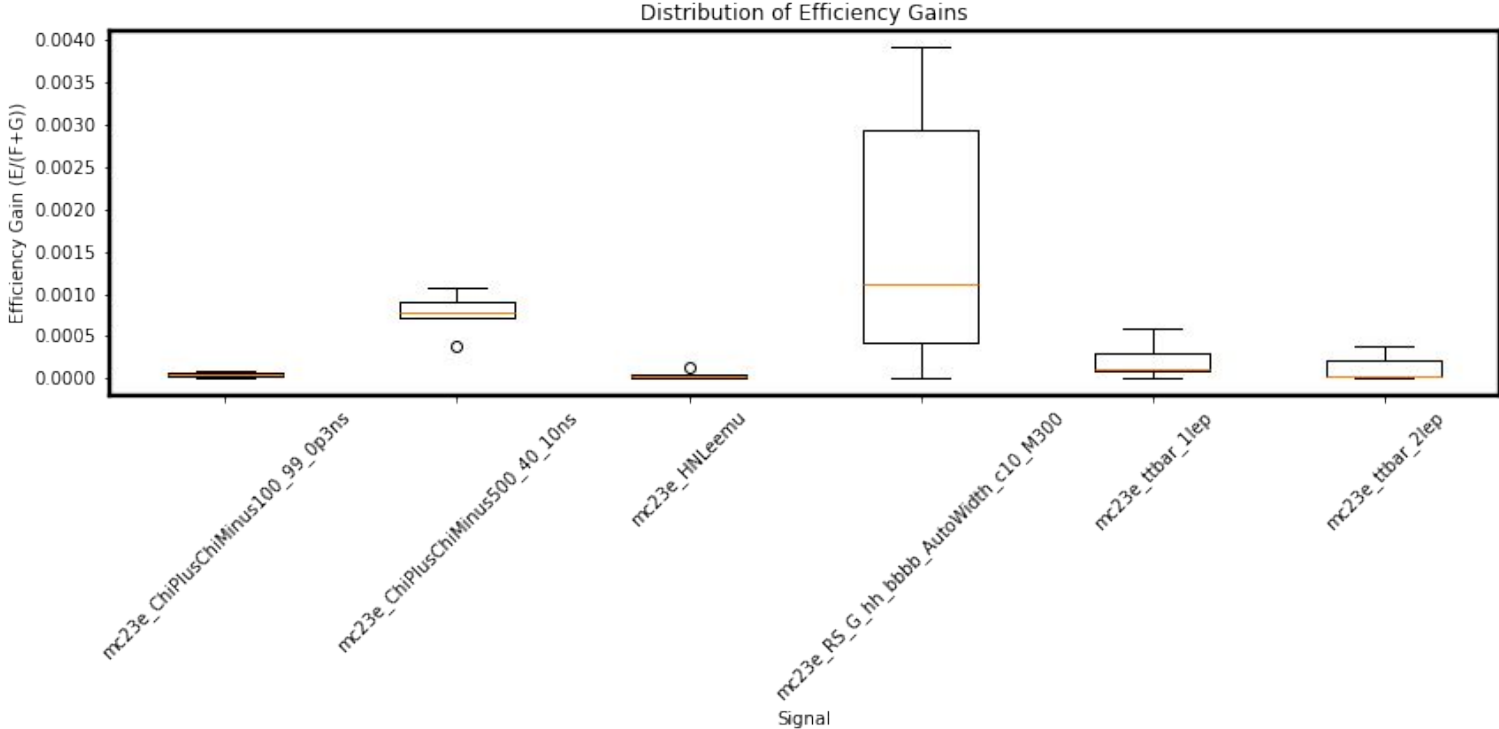Efficiency Gain [E / (F+G)]*100

Distribution of Efficiency Gains
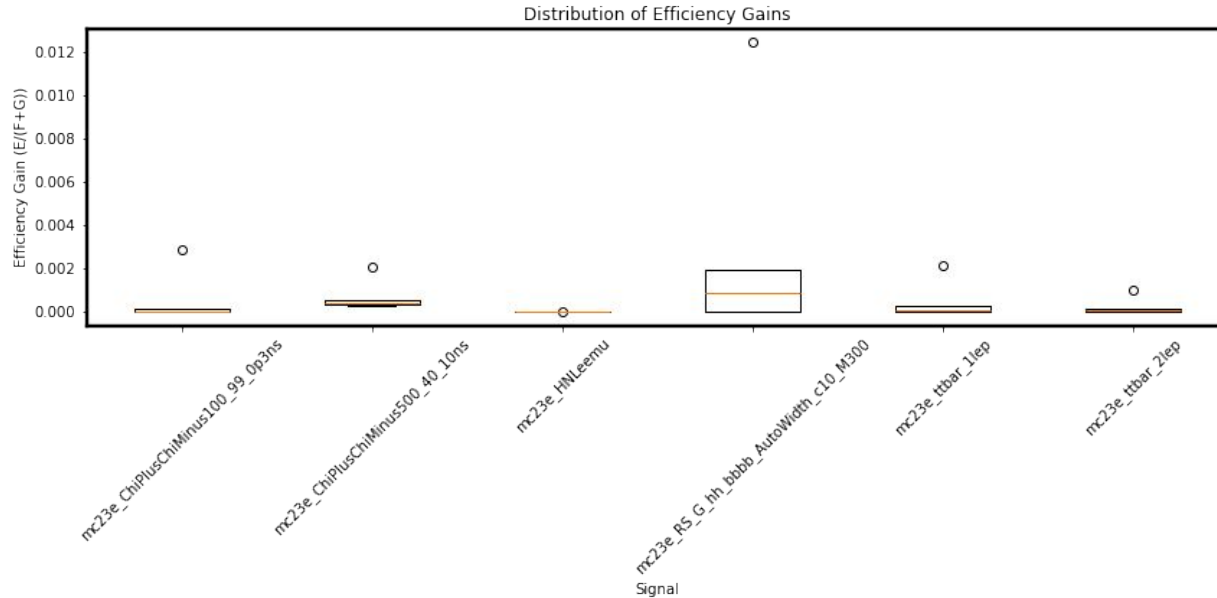
HLT objects, seeded by L1AD

(E+F) / (B+C)

Larger Latent Space

(E) / (F+G)

Larger initial learning rate

(E) / (F+G)

Unfortunately, the outlier points here are not from the same model…